CLAIMS

1. A plant-activating agent comprising a substance having not less than 5% of an improved degree in reproduction of green cells calculated by the following formula:

Improved degree in reproduction of green cells (%) $= [(P_1-P_0)/P_0] \times 100$

 P_0 : Reproduction amount of green cells when the substance acting as the plant-activating agent is not used, and

 P_1 : Reproduction amount of green cells when the substance acting as the plant-activating agent is used.

- 2. The plant-activating agent as claimed in the claim 1, satisfying at least one of the following (a), (b), (c), (d) and (e):
- (a) Improvement degree of the chlorophyll count value (SPAD value) is not less than 2 points,
- (b) Increased amount in weight of a plant (fresh weight or dry weight) is not less than 10%,
- (c) Improved degree in leaf-area of a plant is not less than 5%,
- (d) Increased amount in concentration of ascorbic acid in the blade part is not less than 5%, and
- (e) Decreased degree in concentration of nitrate ion in the blade part is not less than 10%.
- 3. The plant-activating agent as claimed in the claim 1 or 2, wherein the above-mentioned substance has not less than 5% of a standard improved degree in reproduction of chlorella

48

(whose measuring method is described in Description).

- 4. The plant-activating agent as claimed in the claim 1 or 2, wherein the above-mentioned substance is at least one selected from the group consisting of (1) fatty acids or derivatives thereof, (2) organic acids or derivatives thereof, (3) lipids or derivatives thereof, (4) alcohols or derivatives thereof, (5) amines or derivatives thereof, (6) amino acids or derivatives thereof, (7) proteins or derivatives thereof, (8) nucleic acids or derivatives thereof, (9) terpenes or derivatives thereof, (A) natural extracts, (B) fermentation products, (C) fermentation residues and (I) vitamins.
- 5. The plant-activating agent as claimed in the claim 1 or 2, further comprising at least one selected from surfactants and chelating agents.
- 6. Use of the substance as defined in the claim 1 for a plant-activating agent.
- 7. A method of activating a plant, which comprises applying the substance as defined in the claim 1 to the plant.

